

PATENT ABSTRACTS OF JAPAN

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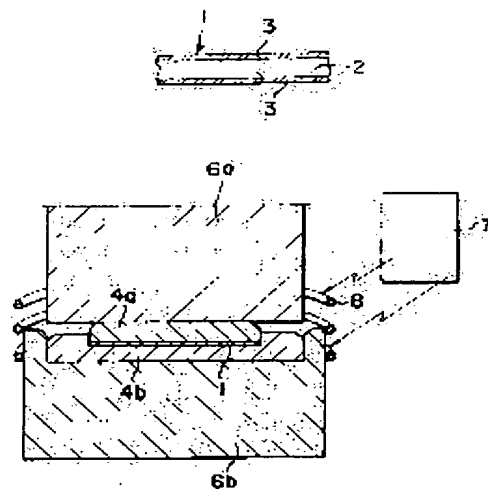
(54) BONDING METHOD AND BONDED PRODUCT

(57)Abstract:

PURPOSE: To bond a material efficiently and firmly in a short time, by inserting a bonding medium prepared by coating both surfaces of a metallic film with a heat-sensitive adhesive between a pair of adherends under pressed conditions, applying a high-frequency induction current thereto, and melting the adhesive under heating.

CONSTITUTION: Both surfaces of a metallic film 2, preferably an aluminum film having a thickness of 50μ , are coated with a heat-sensitive 3, preferably ethylene-vinyl acetate copolymer in a film thickness preferably $\leq 10\mu$ to give a film-like bonding medium 1. The resultant medium 1 is then inserted between a pair of molded synthetic resin articles (4a) and (4b), held and placed between jigs (6a) and (6b) and pressed, and the molded synthetic resin article (4a) is then lightly pressed to the other molded article (4b). A coil 8 is wound around the articles (4a) and (4b) and jigs (6a) and (6b) to supply a high-frequency current to the coil 8. A high-frequency current is then generated in the metallic film 2 to heat and melt the adhesive 3 and bond the molded articles (4a) and (4b) to each other.

EFFECT: A beautiful bonded part can be obtained in a transparent synthetic resin.



LEGAL STATUS

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A - [001] 013 03- 034 04- 041 046 047 066 067 27& 35& 36& 387 437 443 446
454 47& 476 477 52& 54& 575 596 597 602 609

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2728 3155 3228 3241

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PA - (YOSI) YOSHIDA KOGYO KK

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XIC - C08J-005/12 ; C09J-005/06

AB - J57073064 Adhesive film prepd. by coating pressure sensitive adhesive
on both sides of metal film, is held under pressure between materials
to be bonded and the adhesive is melted by induction heating through
application of high frequency electric current. The metal film is
about 50 microns thick and pref. is aluminium film.

- The adhesive is selected from hot-melt types, pref. ethylene-vinyl
acetate and ethylene-acrylic ester copolymers and it is not more than
10 microns thick. A slight depression is pref. formed to accommodate
the adhesive film and insure correct placement.

- Method ensures uniform application of adhesive and prevents impairment
of aesthetic appearance of bonded prod. and is esp. suitable for
assembling plastic mouldings. Strong bonding is accomplished
efficiently in a short time.

IW - ASSEMBLE PLASTIC MOULD FORMING ADHESIVE FILM COMPOSE METAL STRIP
COATING ADHESIVE INSERT ARTICLE BOND HEAT

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COATING ADHESIVE INSERT ARTICLE BOND HEAT

NC - 001

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TI - Assembling e.g. plastic moulds - by forming adhesive film composed of
metal strip coated with adhesive, inserting between articles to be
bonded and heating